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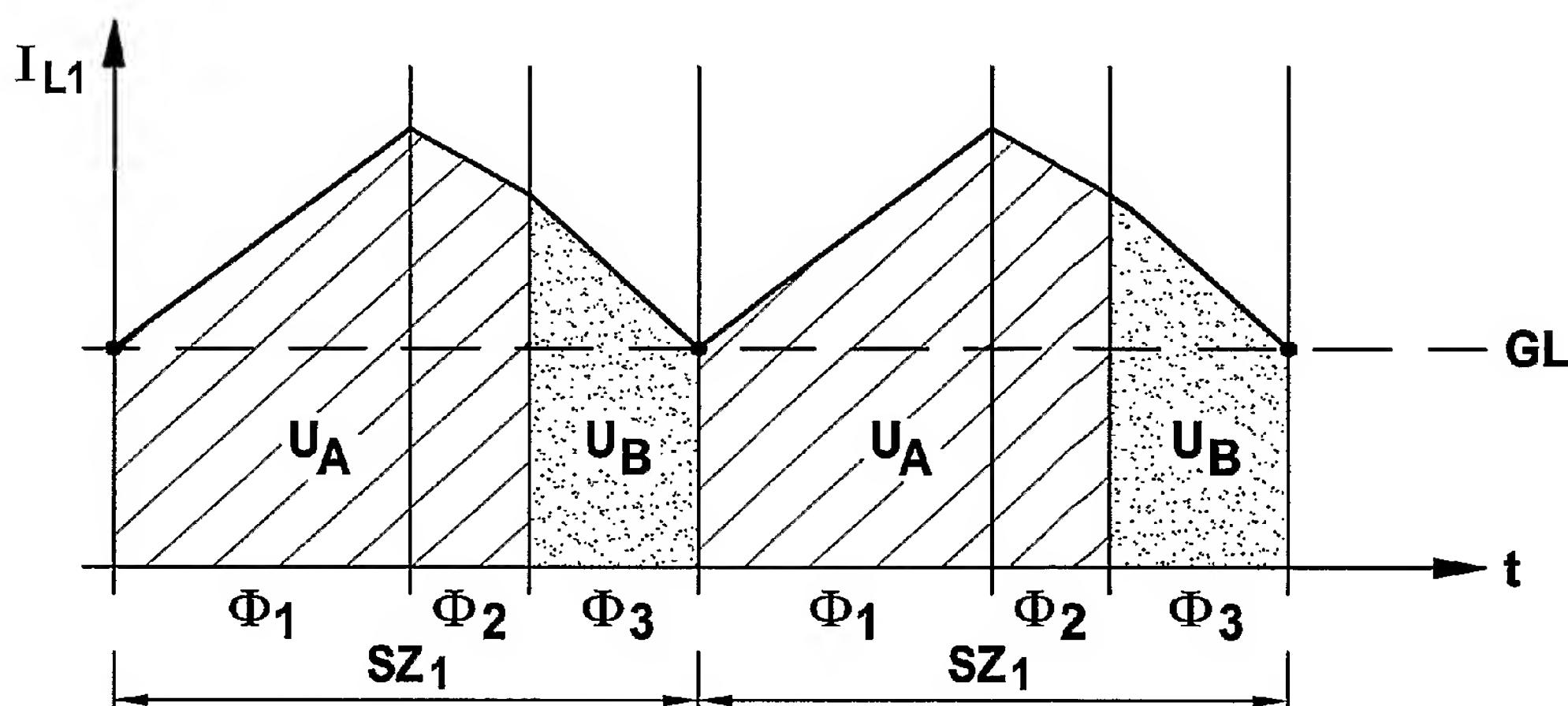
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(54) Title: METHOD OF OPERATING A DC/DC UP/DOWN CONVERTER



(57) Abstract: A method for an up-down converter which is based on a buck converter during the current down-conversion phase ( $\Phi_2$ ,  $\Phi_3$  and  $\Phi_5$ ,  $\Phi_6$ , respectively) of the coil ( $L_1$ ) supplies an output (B) with a relatively high output voltage ( $U_B$ ), where  $U_B > U_{in}$ . The down-conversion phase of the coil current ( $I_{L1}$ ) comprises at least two different down-conversion phases ( $\Phi_2$ ,  $\Phi_3$  and  $\Phi_5$ ,  $\Phi_6$ , respectively). A method for an up-down converter, which converter is based on a boost converter, supplies during the current up-conversion phase ( $\Phi_7$ , and  $\Phi_{10}$ , respectively) of the coil ( $L_2$ ) an output (D) which has a relatively low output voltage ( $U_D$ ) with power, where  $U_D > U_{in}$ . The up-conversion phase of the coil current ( $I_{L2}$ ) comprises at least two different current reduction phases ( $\Phi_7$ ,  $\Phi_8$  and  $\Phi_{10}$ ,  $\Phi_{11}$  respectively).



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